

**DATA SOURCES FOR EVALUATION  
COSTS AND BENEFITS OF RETROFIT  
PLANS**

## BASELINE: MS4 PROGRAMS

Table A-64. Purpose of stormwater retrofit program

Response	Phase I		Phase II		All	
	Yes	%	Yes	%	Yes	%
To comply with stormwater permit requirements	63	26%	21	9%	84	18%
As a demonstration site or training opportunity	36	15%	10	4%	46	10%
To comply with CSO long term control plan	7	3%	3	1%	10	2%
To address flooding	56	23%	28	12%	84	18%
To address wetlands mitigation	24	10%	5	2%	29	6%
To comply with Total Maximum Daily Load (TMDL) or other Clean Water Act water quality requirement(s)	49	20%	17	7%	66	14%
To comply with Safe Drinking Water Act (SDWA) wellhead protection or UIC regulations	10	4%	3	1%	13	3%
To comply with other federal regulations (ESA, CERCLA, WRDA, etc.)	12	5%	3	1%	15	3%
Other requirements, such as state requirements	9	4%	4	2%	13	3%
To address watershed plan or local water quality, habitat or stream stability or geomorphology concerns	56	23%	22	10%	78	17%
Other	16	7%	2	1%	18	4%
Not applicable	14	6%	20	9%	34	7%

## ALTERNATIVE BASELINE: STATE <sup>from</sup> ICR REQUIREMENTS

	Count	Jurisdiction	Who Applies To	Requirement
MS4 General Permit	6 (12%)	UT	Small MS4 General Permittees, soon Phase I Permittees too	Plan to address sites impacting WQ. Prioritize based on WQ impacts, opportunistically. 40% reduction in TSS from existing discharges by 2013. Many must retrofit.
MS4 Individual Permits		WI	MS4 General and Individual Permits	Identify problem sites. Prioritize projects for pollutant reduction, proven technology, economic feasibility.
Where TMDLs Necessitate In Separate Regulation	3 (6%)	NY	54 MS4s to meet numeric load reductions (N, P, Pathogens). East of Hudson requires approval of retrofit plan to meet P targets.	Inventory potential locations based on flooding and WQ impacts. Prioritize based on cost, WQ benefits, acceptance, and aesthetics. Must emphasize infiltration, evapotranspiration, and
No	5 (10%)	TN	Small MS4s with TMDLs	Assess impacts of flood management projects. Retrofitting required in some cases.
	25 (50%)	CO	Phase I individual permits,	Determine water conditions, specify and prioritize nonstructural and structural practices, monitor and document progress until all land covered by specific action plan. Additional 20% of land area must be restored by end of permit term
		Montgomery County	Phase I Permittees	

5/16/2012

of Briefing

**DATA SOURCES FOR EVALUATION  
COSTS AND BENEFITS OF  
"RETROFIT" PLANS**

## BASELINE: REGULATED MS4 ICR

Table A-64. Purpose of stormwater retrofit program

Response	Phase I		Phase II		All	
	Yes	%	Yes	%	Yes	%
To comply with stormwater permit requirements	63	26%	21	9%	84	18%
As a demonstration site or training opportunity	36	15%	10	4%	46	10%
To comply with CSO long term control plan	7	3%	3	1%	10	2%
To address flooding	56	23%	28	12%	84	18%
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To comply with Total Maximum Daily Load (TMDL) or other Clean Water Act water quality requirement(s)	49	20%	17	7%	66	14%
To comply with Safe Drinking Water Act (SDWA) wellhead protection or UIC regulations	10	4%	3	1%	13	3%
To comply with other federal regulations (ESA, CERCLA, WRDA, etc.)	12	5%	3	1%	15	3%
Other requirements, such as state requirements	9	4%	4	2%	13	3%
To address watershed plan or local water quality, habitat or stream stability or geomorphology concerns	56	23%	22	10%	78	17%
Other	16	7%	2	1%	18	4%
Not applicable	14	6%	20	9%	34	7%

## ALTERNATIVE BASELINE: STATE WIDE MS4 PERMIT REQUIREMENTS SOURCE : NPDES ICR

**Question B-27** Are there currently storm water retrofit requirements in any MS4 permits (or other regulation) in your state to reduce the water quantity and quality impacts from existing developed areas?

Response	Number of Respondents	Percent of Respondents
Yes, in the MS4 general permit <sup>a</sup>	6	12%
Yes, in the MS4 individual permits <sup>b</sup>	11	22%
Yes, there are retrofit requirements in some MS4 permits which a TMDL implementation plan necessitates such practices <sup>c</sup>	3	6%
There are no retrofit requirements in MS4 permits, but there are retrofit requirements in another regulation	5	10%
No	25	50%

Additional retrofit requirements in permits have been compiled from MS4 audits.

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## ALTERNATIVE BASELINE: STATE WIDE MS4 PERMIT REQUIREMENTS (SOURCE : NPDES ICR)

Jurisdiction	Who Applies To	Requirement
UT	Small MS4 General Permittees, soon Phase I Permittees too	Plan to address sites impacting WQ. Prioritize based on WQ impacts, opportunistically. 40% reduction in TSS from existing discharges by 2013. Many must retrofit.
WI	MS4 General and Individual Permits	Identify problem sites. Prioritize projects for pollutant reduction, proven technology, economic feasibility.
NY	54 MS4s to meet numeric load reductions (N, P, Pathogens). East of Hudson requires approval of retrofit plan to meet P targets	Inventory potential locations based on flooding and WQ impacts. Prioritize based on cost, WQ benefits, acceptance, and aesthetics.
TN	Small MS4s with TMDLs	Assess impacts of flood management projects. Retrofitting required in some cases.
CO	Phase I Individual permits,	Determine water conditions, specify and prioritize nonstructural and structural practices, monitor and document progress until all land covered by specific action plan. Additional 20% of land area must be restored by end of permit term.
Montgomery County	Phase I Permittees	Develop retrofit plan with performance metrics, all major renovations shall include retention, plant 4150 acres of tree coverage/year with 40% tree coverage by 2035, install 350,000 square feet of green roofs and report on incentive programs
DC	The taxed but not represented	

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**DATA SOURCES FOR EVALUATION  
COSTS AND BENEFITS OF  
"RETROFIT" PLANS**

## BASELINE: Regulated MS4 ICR

Question A-60 asked have any stormwater retrofit projects been initiated or completed as part of your MS4 stormwater program to enhance the reduction of stormwater pollutants or runoff volume or flow rates?

**Table A-60. Initiation and completion of retrofit projects**

Response	Phase I		Phase II		All	
	Yes	%	Yes	%	Yes	%
Yes	146	60%	90	39%	236	50%
No	94	39%	133	58%	227	48%
No answer	3	1%	5	2%	8	2%

Question A-61 asked do you have a stormwater retrofit program for the MS4 (may be voluntary)?

**Table A-61. Stormwater retrofit programs**

Response	Phase I		Phase II		All	
	Yes	%	Yes	%	Yes	%
Yes	100	41%	41	18%	141	30%
No	140	58%	181	79%	321	68%
No answer	3	1%	6	3%	9	2%